

WHAT IS CLAIMED IS:

1. A semiconductor pressure sensor device, comprising:
 - a semiconductor sensor substrate having one and other main surfaces facing and
 - 5 being in parallel with each other; and
 - a support member on which said semiconductor sensor substrate is mounted,
 - wherein
 - said semiconductor sensor substrate comprises
 - a thin part constituting a diaphragm;
 - 10 a thick part surrounding said thin part;
 - a strain gage element formed on a surface of said diaphragm in a side of said
 - one main surface, for detecting a pressure; and
 - a first concave part formed by said thin part and said thick part, having an
 - opening part in said other main surface, and whose bottom part corresponds to said thin
 - 15 part, wherein
 - said support member comprises
 - a second concave part, wherein
 - said support member is fixed on said thick part of said semiconductor sensor
 - substrate in a side of said other main surface so that an opening part of said second
 - 20 concave part faces with said opening part of said first concave part and has a positional
 - relationship to be included in said opening part of said first concave part in a plane view.
2. The semiconductor pressure sensor device according to claim 1, wherein a
- thickness of said thick part of said semiconductor sensor substrate is no fewer than 150
- 25 μm , nor more than 250 μm .

3. The semiconductor pressure sensor device according to claim 2, wherein a depth of said second concave part of said support member is no fewer than 150 μm .

4. The semiconductor pressure sensor device according to claim 1, wherein
5 sections of said opening parts of said first and second concave parts have a rectangular shape, respectively.